

Amendments to the Drawings:

The attached sheet of drawings includes FIGS. 1 and 2, which illustrate the embodiments disclosed in sheets 5-6 of the presently amended specification.

Attachment: Replacement Sheet

REMARKS

The present amendment makes editorial changes and corrects typographical errors in the specification, which includes the Abstract and drawings, in order to conform the specification to the requirements of United States Patent Practice. No new matter is added thereby. Attached hereto is a Substitute Specification including a marked-up version of the changes made thereto via by the present amendment.

In addition, the present amendment cancels original claims 1-4 in favor of new claims 5-8 . Claims 5-8 have been presented solely because the revisions by red-lining and underlining which would have been necessary in claims 1-4 in order to present those claims in accordance with preferred United States Patent Practice would have been too extensive, and thus would have been too burdensome. The present amendment is intended for clarification purposes only and not for substantial reasons related to patentability pursuant to 35 U.S.C. §§101, 102, 103 or 112. Indeed, the cancellation of claims 1-4 does not constitute an intent on the part of the Applicants to surrender any of the subject matter of claims 1-4.

Early consideration on the merits is respectfully requested.

Respectfully submitted,

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Marked-Up Version of Substitute Specification

Description

~~Key protection for mobile radio devices~~

SPECIFICATION

TITLE

SAFETY SYSTEM FOR MOBILE TELEPHONE KEYS

FIELD OF TECHNOLOGY

The ~~invention~~ present disclosure relates to an apparatus and a method for protecting a mobile radio device against unintended switching on, a method for protecting a mobile radio device against unintended cancellation of a lock function and a method for protecting a mobile radio device against unintended activation of a function key.

BACKGROUND

Mobile radio devices or mobile telephones are becoming smaller and smaller and can now easily be carried in a trouser pocket. To protect them against unintended switching on, mobile radio devices are generally protected by a fold down cover over the keypad or a hard case. This protection influences the design of the device.

Mobile radio devices are generally switched on by what is known as a long press or pressing the on/off key for a predefined period. Without additional mechanical protection, mobile telephones that are switched off can be inadvertently switched on whilst being carried in a trouser pocket and chargeable calls or internet access can even be initiated.

SUMMARY

~~The object of the invention is~~ Accordingly, an apparatus and method is disclosed to improve the protection of a mobile radio device against unintended switching on and to protect it against unintended cancellation of a lock function.

~~This object is achieved according to the invention for a method for protecting a mobile radio device against unintended switching on by the features specified in claim 1, for a method for protecting a mobile radio device against unintended cancellation of a lock function by the features specified in claim 2 and~~

~~for a method for protecting a mobile radio device against unintended activation of a function key by the features specified in claim 3.~~

~~The claimed protection of mobile radio devices is based on a purely electronic solution, so that there are no constraints on the design of the telephone.~~

BRIEF DESCRIPTION OF DRAWINGS

The various objects, advantages and novel features of the present disclosure will be more readily apprehended from the following Detailed Description when read in conjunction with the enclosed drawings, in which:

FIG. 1 illustrates a mobile device and key pressure applied to different keys; and

FIG. 2 illustrates a processing sequence for evaluating key presses under an exemplary embodiment.

DETAILED DESCRIPTION

~~The claimed solution~~ exemplary embodiments disclosed herein is based on the assumption that a mobile telephone carried in a trouser pocket is not switched on by a clean long press with uncontrolled key ~~activation~~ activation, but that the pressure exerted by the trouser pocket is distributed more or less regularly over a number of keys.

~~Therefore with the claimed method~~ In FIG. 1, the pressure 1 applied to a key with or shortly after the long press 201 is stored and evaluated 202 for example during or after start-up 200. As the process in FIG. 2 illustrates, . If other keys 2 have been pressed at the same time or almost at the same time as the long press on the on/off key (203, 204), or a number of keys were pressed at the same time just after this, it is assumed that this is unintended and the device is switched off again 205. The mobile radio device is therefore only switched to operating mode, if a pressure is applied for a predefined period to the on/off key and no further keys have been pressed during this time period 206.

~~It Alternately, it~~ is also possible for example to protect a locked keypad in the same manner. The key press to cancel the lock function on a predefined lock key is monitored in the same manner, so that unintended cancellation of the key lock is prevented.

The same method can also be used to protect soft keys and speed call keys. Thus when a device is switched on, if the user has for example forgotten to lock the keypad, it is therefore possible to prevent unintended internet access and calls from the telephone book or using speed dial. Such protection can be offered to the user as a permanent active option. It is then still possible to switch off the mobile radio device but it is not possible to forget to activate key lock.

In one embodiment of the invention such protection is offered to the user as an option, for example via the menu 3.

While the invention has been described with reference to one or more exemplary embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiments disclosed as the best mode contemplated for carrying out this invention, but that the invention will include all embodiments falling within the scope of the appended claims.

ABSTRACT

~~The inventive~~ An apparatus and method is disclosed for protecting a mobile telephone against an unintentional switch-on ~~consists in memorizing and evaluating~~ wherein a pressure produced on ~~the start~~ a key and is stored and evaluated, along ~~with~~ a practically substantially simultaneous pressure on one or several other keys, ~~said~~ The mobile telephone being switched ~~on the~~ into a operating mode ~~thereof~~ only when the pressure is applied on ~~the start~~ one key.